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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/824,092	04/14/2004	Ajay Kumar	5681-72300	6152
35690	7590	10/04/2006	EXAMINER	
MEYERTONS, HOOD, KIVLIN, KOWERT & GOETZEL, P.C. 700 LAVACA, SUITE 800 AUSTIN, TX 78701			NGUYEN, CINDY	
			ART UNIT	PAPER NUMBER
			2161	

DATE MAILED: 10/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/824,092

Applicant(s)

KUMAR, AJAY

Examiner

Cindy Nguyen

Art Unit

2161

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

This is in response to application filed on 04/14/04 in which claims 1-39 are presented for examination.

### ***Information Disclosure Statement***

The information disclosure statement filed on 05/03/06 is in compliance with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609. Because it has been placed in the application file, and the information referred to therein has been considered as to the merits.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 4, 27 recite pronoun "such that" is not permitted in the claim. Correction is required.

Regarding claims 1, 14 and 27, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claims 4, 17 and 30 recite pronoun "such that" is not permitted in the claim. Correction is required.

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 14-39 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

To be statutory, a claimed computer-related process must either: (a) result in a physical transformation outside the computer for which a practical application is either disclosed in the specification or would have been known to a skilled artisan, or (b) be limited to a practical application with useful, concrete and tangible result.

The claim recited a method for receiving, analyzing and generating the structure of classes. In the above limitation, there is no physical transformation being claimed, a practical application would be established by a useful, concrete and tangible result

For it to be a tangible result, it must be more than a thought or a computation and must have a real world value rather than being an abstract idea.

It is unclear as to what kind of tangible output is obtained by analyzing and generating one or more enhanced classes to persist the persistent class data according to the persistence structure.

Regarding claim 27-39, a computer-accessible medium carrying one or more sequences of Instructions for executing transactions is recited in the claim. "Computer-accessible medium" as defined in the specification (0051, 0054) may transmit or carry instructions to a computer, as well as transmission media or signals such as electrical, electromagnetic, or digital signals, conveyed via a communication medium such as network and/or a wireless link. A signal encoded with functional

descriptive material does not fall within any of the categories of patentable subject matter. Therefore, claims 13-25 are not statutory (As set forth in § 101, a claimed signal is clearly not a process under § 101 because it is not a series of steps. A claimed signal has no physical structure, does not itself perform any useful, concrete and tangible result, and does not fit within the definition of a machine. A claimed signal is not matter, but a form or energy, and therefore is not a composition of matter or product).

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 4, 7, 10, 14, 17, 20, 23, 27, 30, 33 and 36 are rejected under 35 U.S.C. 102(e) as being anticipated by anticipated by Boyle (US 20030051229).

Regarding claims 1, 14 and 27, Boyle discloses: a system, a method and a computer-accessible medium, comprising: a processor, (paragraph 0041, Boyle); and

Memory

(paragraph 0040, Boyle) coupled to the processor and configured to store program instructions

executable by the processor to implement a class structure based data object enhancer configured to:

input one or more classes (paragraphs 0024, Boyle);

analyze the structure of the one or more classes to determine a persistence structure for data of the one or more classes to be persisted (0025-0030, Boyle); and

generate one or more enhanced classes corresponding to the one or more classes such that the one or more classes are enhanced to persist the persistent class data according to the persistence structure (0025-0030, Boyle).

Regarding claims 4, 17 and 30, all the limitations of this claim have been noted in the rejection of claims 1, 14 and 27 above. In addition, Boyle discloses: wherein the class structure based enhancer is further configured to generate metadata that includes the results of the class analysis (0026-0028, Boyle).

Regarding claims 7, 20 and 33, all the limitations of this claim have been noted in the rejection of claims 1, 14 and 27 above. In addition, Boyle discloses: wherein the persistence structure corresponds to the structure of the one or more classes (0018-0020, Boyle).

Regarding claims 10, 23, 36, all the limitations of this claim have been noted in the rejection of claims 1, 14 and 27 above. In addition, Boyle discloses wherein the rules applied by the class structure based enhancer include persisting class fields that are not static or transient (0037, 0038, Boyle).

***Claim Rejections - 35 USC § 103***

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 3, 5, 12, 15, 16, 18, 25, 28, 29, 31 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boyle et al. (US 20030051229) (hereafter Boyle) in view of Chan et al. (US 6633892) (hereafter Chan).

Regarding claims 2, 15 and 28, all the limitations of this claim have been noted in the rejection of claims 1, 14 and 27 above. However, Boyle didn't disclose: wherein to analyze the structure of the classes, the class structure based enhancer is configured to make one or more Java reflection calls to the input classes. On the other hand, Chan discloses: wherein to analyze the structure of the classes, the class structure based enhancer is configured to make one or more Java reflection calls to the input classes (col. 4, lines 43 to col. 5, lines 14, Chan). Thus, at the time invention was made, it would have been obvious to a person of ordinary skill in the art to include wherein to analyze the structure of the classes, the class structure based enhancer is configured to make one or more Java reflection calls to the input classes in the system of Boyle as taught by Chan. The motivation being to translate the java program source code into java bytecodes, which are instructions for a virtual computer, called the java virtual machine and class files may store in memory.

Regarding claims 3, 16, 29, all the limitations of this claim have been noted in the rejection of claims 1, 14 and 27 above. In addition, Boyle/Chan discloses: wherein to analyze the structure of the classes, the class structure based enhancer is configured to parse bytecode of the one or more classes to determine class and field attributes (col. 5, lines 30-45, Chan).

Regarding claims 5, 18, 31, all the limitations of this claim have been noted in the rejection of claims 4, 17 and 30 above. In addition, Boyle/Chan discloses: wherein the generated metadata is output explicitly as a metadata file (col. 7, lines 65 to col. 8, lines 15, Chan).

Regarding claims 12, 25 and 38, all the limitations of this claim have been noted in the rejection of claims 1, 14 and 27 above. In addition, Boyle/Chan discloses: wherein the one or more classes are comprised in a Java Archive (JAR) file (col. 5, lines 29-42, Chan). Thus, at the time invention was made, it would have been obvious to a person of ordinary skill in the art to include wherein the one or more classes are comprised in a Java Archive (JAR) file in the system of Boyle as taught by Chan. The motivation being to creating jar files, flexibility in use and design of such programs would be enhanced if the entry name of a class file and other file to be placed in jar archive could be assigned a name that is independent of wherein the file is physically located on a file system.

**Claims 6, 8, 9, 11, 13, 19, 21, 22, 24, 26, 32, 34, 35, 37 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boyle et al. (US 20030051229) (hereafter Boyle) in view of Vachuska et al. (US 20040044687) (hereafter Vachuska).**



Regarding claims 6, 19 and 32, all the limitations of this claim have been noted in the rejection of claims 5, 18, 31 above. However, Boyle didn't disclose: wherein the metadata file is an extensible markup language (XML) file. On the other hand, Vachuska discloses: wherein the metadata file is an extensible markup language (XML) file (0046, Vachuska). Thus, at the time invention was made, it would have been obvious to a person of ordinary skill in the art to include wherein to analyze the structure of the classes, the class structure based enhancer is configured to make one or more Java reflection calls to the input classes in the system of Boyle as taught by Chan. The motivation being to translate the java program source code into java bytecodes, which are instructions for a virtual computer, called the java virtual machine and class files may store in memory.

Regarding claims 8, 21, 34, all the limitations of this claim have been noted in the rejection of claims 1, 14 and 27 above. In addition, Boyle/ Vachuska discloses wherein the persistence structure maps the data to be persisted to a single table in a database (0044, Vachuska).

Regarding claims 9, 22 and 35, all the limitations of this claim have been noted in the rejection of claims 1, 14 and 27 above. In addition, Boyle/ Vachuska discloses wherein to determine a persistence structure for the data of the one or more classes the class structure based enhancer is configured to apply one or more rules to the results of Java reflection calls to or byte code parsing of the one or more input classes (0044, Vachuska).

Regarding claims 11, 24, 37, all the limitations of this claim have been noted in the rejection of claims 1, 14 and 27 above. In addition, Boyle/ Vachuska discloses wherein the rules applied by the

class structure based enhancer include storing persistent fields of a given class in a table corresponding to that class in a database (0044, Vachuska).

Regarding claims 13, 26, 39, all the limitations of this claim have been noted in the rejection of claims 1, 14 and 27 above. In addition, Boyle/ Vachuska discloses, wherein the class structure based JDO enhancer is further configured to output the enhanced one or more classes and a database schema for storing the persistent class data in a persistent data store (0044-0046, Vachuska). Thus, at the time invention was made, it would have been obvious to a person of ordinary skill in the art to include wherein to analyze the structure of the classes, the class structure based enhancer is configured to make one or more Java reflection calls to the input classes in the system of Boyle as taught by Chan. The motivation being to enable the system performs the tasks of storing and retrieving objects from the database (0046, Vachuska).

#### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cindy Nguyen whose telephone number is 571-272-4025. The examiner can normally be reached on M-F: 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gaffin Jeffrey can be reached on 571-272-4146. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-872-9306 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

*CN*

Cindy Nguyen  
September 30, 2006

*Frantz Coby*  
**FRANTZ COBY**  
**PRIMARY EXAMINER**